AMENDMENT

In the Specification:

On page 1, line 20, delete "stretch", and insert -- strand -- before "of".
On page 9, line 27, insert -- promoter -- after "hemoglobin".

In the Claims:

Please amend following claims:

1 (amended). A method for producing and delivering protein in vivo comprising the steps of:

(a) inserting a promoter and a gene encoding a non-native protein to red blood cells in a vector with an operable linkage between said promoter and said gene; wherein said promoter is active only in progenitor cells of red blood cells;

(b) collecting an amount of [host cells] progenitor cells of red blood cells from a mammal;

(c) [treating host cells] transfecting said progenitor cells of red blood cells in vitro with said vector;

(d) introducing the treated [host cells] progenitor cells of red blood cells back to said mammal, wherein the treated [host cells] progenitor cells of red blood cells produce red blood cells and said protein in vivo in said mammal, and wherein said protein is contained only in said red blood cells, and thereafter said protein is released into blood stream of said mammal through rupture of said red blood cells.

8 (amended). The method of Claim 1 wherein said progenitor cells of red blood cells are stem cells. [host cells are stem cells, and progenitor cells of said red blood cells.]

10 (amended). The method of Claim 11 wherein the rupture of said red blood cells in vivo is [an induced process in vivo] induced by genetic mutation, wherein life time of said red blood cells is modified.

13 (amended). The method of any one of Claim 11-12 wherein said protein is a naturally [occurred] occurring protein.

16 (amended). A method for producing and delivering protein in vivo comprising the steps of:

(a) inserting a hemoglobin promoter and a gene encoding a non-hemoglobin protein in a vector with an operable linkage between said promoter and said gene;

(b) collecting an amount of host cells from a mammal;

(c) [treating] transfecting host cells in vitro with said vector;

(d) introducing the treated host cells back to said mammal, wherein the treated host cells produce red blood cells and said protein in vivo in said mammal, and wherein said protein is contained only in said red blood cells, and thereafter said protein is released into blood stream of said mammal through rupture of said red blood cells.

24 (amended). The method of Claim 23 wherein the rupture of said red blood cells in vivo is [an induced process in vivo] induced by genetic mutation, wherein life time of said red blood cells is modified.

27 (amended). The method of any one of Claim 25-26 wherein said protein is a naturally [occurred] occurring protein.